Missing Number (View)

Given an array `nums` containing `n` distinct numbers in the range `[0, n]`, return *the only number in the range that is missing from the array.*

Example 1:

```
Input: nums = [3,0,1]

Output: 2

Explanation: n = 3 since there are 3 numbers, so all numbers are in the range
[0,3]. 2 is the missing number in the range since it does not appear in nums.
```

Example 2:

```
Input: nums = [0,1]

Output: 2

Explanation: n = 2 since there are 2 numbers, so all numbers are in the range
[0,2]. 2 is the missing number in the range since it does not appear in nums.
```

Example 3:

```
Input: nums = [9,6,4,2,3,5,7,0,1]

Output: 8

Explanation: n = 9 since there are 9 numbers, so all numbers are in the range
[0,9]. 8 is the missing number in the range since it does not appear in nums.
```

Constraints:

- `n == nums.length`
- $1 <= n <= 10^4$
- `0 <= nums[i] <= n`
- All the numbers of `nums` are **unique**.

Follow up: Could you implement a solution using only `O(1)` extra space complexity and `O(n)` runtime complexity?